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# POSTWAR RESTORATION AND CONSTRUCTION OF RAILWAY LINES IN CHINA

Chung-kuo T'ieh-lu Chi Ch'i Fa-tien-ti Ch'u-hsiang (Chinese Railways and Trends of Development) Kowloon, Oct 1950

[Comment: This report summarizes briefly Chapters 7, 8, 9, and 10 of the above-mentioned source. Chapter 7 deals with the immediate repairs, improvements, and replacements needed in the restoration of existing railway lines. Chapter 8 deals with the plan for construction of new lines in the future. Chapter 9 gives the estimated cost of construction of new lines. Chapter 10 discusses problems concerning the collection of construction materials.]

#### Restoration

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The period between 1926-1937 was the most prosperous period of the rail-way industry in China; many new lines were built and many old lines were repaired.

After the beginning of the Sino-Japanese war and the war between the Nationalists and the Communists, the condition of the railways began to deteriorate rapidly. Now many tracks, bridges, tunnels, locomotives, rolling stock, etc., are seriously in need of repairs, improvement, and replacement.

Tracks need attention most urgently. During the war between China and Japan, and the war between the Nationalists and the Communists, many tracks were either damaged, or destroyed, or stripped and relocated. Some repairs were made during the war years, although in most cases, they were temporary with many different types and sizes of rails. At present, a large number of rails as light as 30 pounds per yard are still being used on the main lines. These light rails must be replaced with the standard rails of 80 pounds per yard. On the main lines many rails are joined with two flat iror plates, but these improvised plates must be replaced with regular fishplates immediately.

Nearly all the railway bridges in China are in serious condition after 10 or more years of disrepair. In most cases the structure of the bridges is too weak to permit the passage of trains at normal speed. About half of the total number of bridges on the Pei-Han Line, the Yueh-Han line, and the Lung-Hai line suffered various degrees of damage during the Sino-Japanese war, and a few more were damaged during the war between the Nationalists and the Communists. Some temporary repairs have been made to those bridges.

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Many types and sizes of locomotives are being operated in China. Some are old and some are new, but almost all are the coal burning type. Some have higher couplers than the others; some have automatic couplers. Freight car sizes range from 5 to 50 tons in load capacity, and the wheels on nearly all of them are worn beyond the degree considered safe for operation.

Repairing or replacing worn out locomotive and rolling stock parts, and standardizing couplers and sizes of freight cars will require a large amount of money, but these things must be done immediately before purchasing new equipment or constructing new lines.

# Construction of New Lines

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Many proposed railway construction plans have been drawn up by Frominent or authoritative personnel in China, including Sun Yat-sen. His plan was consist Government. This plan, which was to begin immediately after the cessation of Sino-Japanese war, called for the construction of the following lines:

- 1. Chai-i--Wei-ning section of the Hsu-Kan line, and extension of this line eastward to Kuei-yang. Construction of the Chungking--Kuei-yang line, the Chungking-Cheng-t'u line, the T'ien-shui--Lanchow line, and extension of the T'ien-shui--Lanchow line to Ha-mi, Sinkiang, via Chiu-ch'uan and Yu-men.
- 2. Lai-pin-Li-t'ang section of the Hsiang-Kuei line, and extension of the Lanchow, Cheng-t'u, and Kuei-yang with a seaport.
- 3. Ching-chiang--Kan-hsien line in Kiangsi Province, and extension of this line southward to Chu-chiang. This line would help the development of mineral resources in the southern portion of Kiangsi Province.
- 4. Southern portion of the Ching-Kan line, and extension of this line southward to Foochow via Kuei-chi and Nan-p'ing. Also, extension of this line southwestward from Nan-p'ing to Shih-lung, via Chang-p'ing and Mei-line southward from Chang-p'ing to Amoy via Chang-chou. This would provide the southeastern coast of China with an adequate transportation network.
- 5. A line from Pao-t'ou to Lanchow via Ninghsia. This would provide another line connecting Tientsin and Peiping with the Northwest via Kalgan, Pao-t'ou, and Lanchow.
- 6. K'ai-feng--Tsinan line to connect Tsingtao directly with K'ai-feng, via Tsinan, and to create another east-west main line besides the Lung-Hai
- 7. Hsiang-tan--T'u-yun section of the Hsiang-Ch'ien line. This line would provide the third east-west main line between Shanghai and K'un-ming, the Hanchow, Kuei-chi, Chu-chou, and Kuei-yang. The line would also help the development of mineral resources in the western section of Hunan Province.
- 8. Cheng-t'u--Lo-shan, Nei-chiang--K'ang-ting, and I-pin--Tzu-liu-ching lines to help the development of natural resources in Szechwan and Sikang provinces.
- 9. Yunnan-Burma line to the Burmese border to facilitate trade with the Southeast Asiatic countries.



- 10. Lanchow--Hsi-ning line to provide for the future empanyion of this line southward to the southern part of Tsinghai Province.
- 11. Ch'eng-te--Ch'ih-feng--T'ung-liao line in the dortheast to strengthen the connection between China proper and the Northea
- 12. Ch'eng-chih--Ching-hua line to help the development of coal fields along this line.
- 13. Hua-yuan--Hsiang-yang line to provide for the expansion of this line in the future from Hankow to Sian, or from Tzu-yang to Szechwan Province.
- 14. Liu-chou--San-shui line to improve the transportation between Southwest China and Canton.
- 15. Li-t'ang--Chen-nan-kuan line to connect this line with the international line.

# Cost of New Construction

About 60 percent of the total construction fund in the building of new railway lines goes into construction of the roadbed and bridges, and the purchasing of rails, locomotives, and rolling stock. During 1935, the average construction cost of a kilometer of railway in China was about 115,300 yuan, prewar value of silver currency. Of the total, 8,000 yuan was for construction of the roadbed, 24,000 yuan for construction of bridges, 19,000 yuan to purchase rails, and 24,000 yuan to purchase locomotives and rolling stock. According to these averages, the amount of construction funds needed to complete the projected lines described in the preceding chapter will total about 1,388,000,000 yuan in pre-war value of silver currency. In addition, about 485 million US dollars' worth of other equipment and installations are needed to complete the projected lines.

# Construction Materials

Most of the construction materials needed for the building of new railway lines in China must be imported from the foreign countries. Pefore the Sino-Japanese war, a small amount of rails were being manufactured at the An-shan Steelworks, but not after World War II. Some locomotives were also being manufactured at a railway factory near Dairen during the Japanese regime, but none has been manufactured since the end of World War II. Both of these factories were almost completely stripped by the Soviet after World War II, and the restoration of the factories has been extremely slow.

Only a small amount of other items, such as railway ties, switches, signals, telephone and telegraphic apparatus, cement, steel reinforcing materials, bricks, metal products, pumps, generators, picks and shovels, pipes and tubings, explosives and fuel, and the thousands of other materials needed for construction of railway lines are now being produced in China. Almost all must be imported from the foreign countries.

When machinery, equipment, and materials are purchased from the foreign countries, there is a problem of matching these goods with the specification and condition of the railway lines existing in China. In the past, the railway lines in China were built mostly with the machinery and equipment purchased STAT



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